

DIGITAL DISPLAY SYSTEM USING PULSED LASERS

ABSTRACT OF THE DISCLOSURE

An image projection system comprises a laser source that generates a series of periodic pulses having substantially uniform energy content, a spatial light modulator, and a modulator driver synchronized with the laser pulses so that transition intervals of the modulator elements occur in an interpulse period between first and second states of the modulator elements. Because the pulses are substantially equal in energy, and the transitions of the modulator elements occur in interpulse intervals, the collective energy delivered to any pixel in the system described herein during the period of one frame is a direct function of the number of pulses, which can be accurately controlled in a digital manner.